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ABSTRACT

The hypothesis examined in this study is that education as an active force will perform two functions: (1) develop technical innovations and transform the productive structure, and (2) produce men who can undertake social and political innovations in Colombia. The plight of education in rural Colombia is revealed when contrasted with the urban situation. Specifically, the author reviews rural-urban differentials, higher education, vocational training, and literacy programs. Tables present statistics on enrollment, teacher preparation, and a calendar of rainfall activity and school vacations. Other educational opportunities are also discussed with an awareness of the profundity of Colombia's political, social, and economic problems. (RL)

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EDUCATION IN RURAL COLOMBIA:
AN INVESTMENT IN HUMAN RESOURCES

By

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by

A. Eugene Havens*

"We cannot maintain any longer a life that is simple, primitive and little demanding. It is necessary to know things that scarcely half a century ago the immense majority of our compatriots could ignore....In 1962, the illiterate is an invalid at the margin of activities."

-- Alberto Lleras-Camargo

These few words of the past president of Colombia express a common belief of many Colombian leaders. Fundamental education is indispensable to the maintenance of a minimum economic activity. The illiterates, or those barely able to read and write, occupy an inferior position in the community. Not inferior only in the present state of affairs, but also inferior in terms of future development possibilities. Indeed, as Beers stated, "the relative ignorance of the [semi-] literate villager today is even greater than the relative ignorance of his illiterate fathers" since modern development programs demand a higher level of education on the part of the individual farmer in order to translate a country's macro-development plan into a practical consequence for his own enterprise.

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¹Howard W. Beers, Application of Sociology in Development Programs, CECA, January, 1963, p. 7.

²For a review of these assertions, see Theodore W. Schultz, The Economic Value of Education (New York: Columbia University Press, 1963).

Hardly anyone engaged in development research doubts that trained personnel is the sine qua non for economic growth. Without an educated public, other necessary elements such as credit, extension programs, and new markets may only serve to broaden the gap between the "haves" and the "have nots."

Recently, social scientists working on the problems of development have focused attention on education. Myint lists three basic reasons why we have witnessed this new focus of attention:

1. Studies in advanced countries indicate that the rate of economic growth they have attained cannot be entirely explained in terms of increases in material capital and size of labor force. "Residual" factors have been postulated to account for rise in productivity and these "residues" are supposed to be directly related to education.

2. Experience in underdeveloped countries where high inputs of material capital have not brought about corresponding growth has shifted the emphasis from investment in material capital to "investments in human capital."

3. The practical problems accompanying the attempt to launch large scale development programs without a sufficient number of people with the training and skills necessary, indicate a need for education in order to prepare the population for decision-making positions in both the public and private sector.²

In some instances, particularly among certain economists, these previously mentioned considerations have led to the assertion that education is the chief missing component of economic development.³ Nevertheless, it is not a panacea for economic growth and social change. Common sense knowledge would lead us to believe that a certain amount of training is fundamental to making wise management decisions. Furthermore, education may assist the individual in seeing alternatives to their present styles of life. But just seeing alternatives is not sufficient. One must be in a position to pursue them. For

²H. Myint, Education and Economic Development, Paper presented to VII Latin American Sociological Congress, Bogotá, July, 1964.

³For a review of these assertions, see Theodore W. Schultz, The Economic Value of Education, (New York: Columbia University Press, 1963).

example, a farmer who has received training in how to evaluate the potential of a new agricultural technique relative to his farming situation may not be able to adopt the technique unless he can afford the initial cost. He may also need credit or assistance in obtaining the product.

Perhaps more important still is the content of education. Simple rote memorization of the alphabet, multiplication tables, the history of the country and the religious doctrine does not necessarily assist him in seeing other alternatives or in developing means to pursue these alternatives. A vocational, on-the-job training may, in certain instances, be of more value.

With these factors in mind, this paper attempts to analyze the Colombian educational institution. Attention will be given to rural-urban differentials, higher education programs, vocational training, and literacy programs. In addition, we will review the incentives to enter the teaching profession and the current inputs in the Colombian educational program.

The Structure of Rural Education in Colombia

It is possible to obtain a full 18 year education program in Colombia if one has the intellectual ability and economic means. Yet, less than one per cent of Colombian students attend a university and a much smaller percentage graduate.⁴ Certainly more than one per cent of the population of Colombian students have the intellectual ability to enter college. The vast majority lack the economic means to attend and, in fact, the very structure of the educational system prohibits many talented students from progressing up the educational ladder.

In order to enter a university, the student must possess a diploma from the college preparatory school. (The diploma is called the bachillerato and given only by liceos or colegios). In all of Colombia, there are only 1,003 such preparatory schools. Furthermore, over 30 per cent of these schools are located in the urbanized area of Bogotá. Seventy per cent of these schools are private which means that a relatively high tuition must be paid by each student, not to mention the cost of school uniforms and supplies which are also purchased by

⁴Colombia, Anuario de Estadístico General, (Bogotá: Departamento Administrativo Nacional de Estadística-(DANE, 1963)).

the student. To complete the picture, it should be noted that over 80 per cent of all colegios in Colombia are located in departamento capitals. Therefore, unless the student has sufficient funds to travel to these cities, pay his room and board, pay tuition, buy his uniforms and supplies, he is virtually excluded from entering the college preparatory schools.⁵

Primary Schools in Colombia⁶

Obviously, to enter a college preparatory school one must complete his primary education. Primary education in Colombia consists of five years of classes. There are three different systems of classification of primary schools in Colombia. These are: 1) official or those maintained exclusively with state funds and, private, or those which receive support from the Catholic Church, private societies or student tuition, 2) male or female schools, and 3) rural or urban schools.

The second classification, male or female, is based on the tradition of separation of the sexes in the schools. Boys and girls attend separate institutions since co-education is considered morally undesirable by the church. However, the tremendous need for new schools has made it impossible to provide separate buildings for boys and girls, particularly in the rural areas. In 1958, the government authorized (supposedly on a temporary basis) the creation of alternated schools. These alternated schools offer two years of primary education and are attended by boys on one day and girls the next. Despite the fact that each child can spend only half of the normal time in school, 53 per cent of all rural children were still attending alternated schools in 1962 ⁷, and only for two years.

The third classification, rural or urban, needs clarification. An urban school is any school located in a municipio center regardless of the size of the center or the economic activity of the center. Many "urban" schools are attended

⁵About 25 per cent of all students enrolled in colegios receive fellowships for tuition. However, this still leaves a substantial cost for the student.

⁶This section is primarily based upon a study conducted by Jane Loy, graduate student of the University of Wisconsin, during the summer of 1964.

⁷Colombia, DANE, op. cit., 1963.

solely by sons and daughters of rural day laborers or small farmers and operate with extremely small budgets comparable to the schools classified as rural. In brief, the rural-urban classification presented in the following tables is imprecise and misleading.⁸ Nevertheless, the data presented will indicate the severe lack of adequate primary education in all parts of Colombia -- rural or urban.

Table 1 presents the number of students enrolled in primary urban and rural schools in Colombia in 1962. These data clearly indicate that the majority of rural children receive only two years of education. Some attention should be paid to the explanation for this finding. In 1960, there were 19,516 primary schools in Colombia. According to data received from the Colombian Ministry of Education, 8,100 new classrooms were built from 1960 to 1964 in predominantly rural areas. This would indicate a total of 27,616 primary schools at the start of 1964. The Ministry of Education further indicated that 112 million pesos (approximately 11,200,000 dollars) were budgeted for school building in 1964. With this investment in classrooms, why aren't more Colombian youth receiving more than two years of primary education?

The answer is, of course, obvious. Classrooms do not teach. Table 2 provides some information about primary school teacher preparation. In Colombia, there were 48,529 primary teachers in 1961. About 34 per cent of these were teaching in rural areas, while the remainder (66 per cent) were teaching in urban centers. The urban center teachers were better prepared. Only 41 per cent (still a high number for urban teachers) of the urban primary teachers had no more than a primary school education, while 78 per cent of the rural teachers received only primary education. Because the data presented in Table 2 deal in broad categories, it may help to clarify the preparation of primary school teachers by presenting data taken from one of our field studies. The data presented in Table 3 are taken from the Atlantic Coastal Area of Colombia (Cereté, Córdoba) but similar findings were

⁸Dale Adams, Land Tenure Center, Bogotá, is currently analyzing data to reclassify schools on a more realistic basis.

TABLE 1. Number of Colombian Youth Enrolled in Each Grade of Primary Rural and Urban Official and Private Schools (1961)*

Type of School	Year in School					Total
	1	2	3	4	5	
Urban Schools						
Official	810,441	468,580	241,298	150,398	113,096	1,791,813
Private	71,680	54,120	50,324	45,319	42,023	263,466
Rural Schools						
Official	417,050	195,764	33,145	9,676	3,046	650,681
Private	2,217	1,288	829	507	252	5,093
	1,301,388	719,752	325,596	213,900	158,417	2,719,053

*Source: Colombia, DANE, op. cit.

TABLE 2. Level of Preparation of Primary School Teachers in Colombia (1961)*

Type of School	Level of Preparation					Total
	Primary Degree**	Normal School Degree	Vocat'l Degree	College Prep'ry Degree	Univ. Degree	
Urban Schools						
Official	8,794	8,881	596	1,697	266	20,234
Private	4,404	2,989	811	2,718	791	11,713
Sub Total	13,198	11,870	1,407	4,415	1,057	31,947
Rural Schools						
Official	12,644	2,248	616	781	91	16,380
Private	135	39	9	16	3	202
Sub Total	12,779	2,287	625	797	94	16,582
GRAND TOTALS	25,977	14,157	2,032	5,212	1,151	48,529

*Source: Colombia, DANE, op. cit.

**This category is misleading since it represents some teachers who have more education than a primary degree and others who have less.

TABLE 3. Professional Qualifications of Teachers in Cereté, Córdoba, According to the Rural Schools, Public Urban Schools, Private Urban Schools, and Urban Normal Schools (1963).

Sector	Primary					Some High School	High School Graduate	Normal School Without Degree	Normal School With Degree	University Education
	1	2	3	4	5					
Rural	0	2	3	3	10	20	1	8	5	0
Urban Public	0	0	0	1	1	14	0	3	18	0
Urban Private	0	0	0	0	2	8	2	0	2	6
Urban Normal	0	0	0	0	0	4	1	0	9	3
Totals	0	2	3	4	13	46	4	11	34	9

observed in almost all other parts of Colombia with the notable exception of Antioquia.⁹ The most noteworthy fact is that there are actually some rural teachers in Colombia who have only received two years of education. This can hardly be called adequate teacher preparation.

In summary, it may be safely stated that rural education in Colombia is seriously lacking. The majority of rural youth receive less than three years of education in the school and their teachers, by and large, are poorly prepared. Data have not been presented on the number of absences or number of

⁹For more details see A. Eugene Havens and others, Un Estudio Socio-Económico de Un Area de Latifundio: Cereté, Córdoba (Bogotá: Facultad de Sociología) 1964; Andrew Pearse and others, Un Estudio Socio-Económico de Un Area de Minifundio: Tenza, Boyacá (Bogotá: Facultad de Sociología) 1964; and Orlando Fals Borda, Educación en Colombia (Bogotá: Facultad de Sociología), 1961.

dropouts but these figures are readily available in other publications.¹⁰ Roughly 25 per cent of rural students examined fail their promotion tests. This tends to inflate the first and second year enrollment because some of these students are repeaters. Furthermore, on any given day one can expect to find about one-third of the students absent. Worse still, many rural teachers fail to attend to their duties with any regularity.

Dropouts and absences are not solely because of failures and lack of interest. In many cases the school calendar conflicts with the labor needs of the family. Schools attempt to adjust to labor needs by scheduling vacations to correspond with harvest periods but such re-scheduling is not always possible. Table 4 presents a calendar of rain, work, and school to demonstrate this point for Cereté, Córdoba. It is apparent from Table 4 that the school is closed during a peak labor period, namely during cotton harvest. Nevertheless, other activity takes place during the school calendar which either 1) demand all the family labor, such as rice planting, or 2) is culturally defined as children's work, such as the gathering of lizard eggs and turtles.¹¹ Another factor is that rainfall reaches its peak during the middle of the school year. During this period labor demands are low but due to the lack of hard surface roads and transportation facilities, it becomes increasingly more difficult for both teacher and student to reach the school.

All these factors combined spell poor education. Teachers are not adequately prepared and lack devotion to their job.¹² The school calendar sometimes conflicts with the need for the child's labor at home. This does not reflect a low value placed on education. Education is valued highly. But if a

¹⁰Fals Borda, op. cit.

¹¹These two products form a major portion of the diet during the season since fish become scarce during the dry season.

¹²The church has long preached about the need for education and purports to support rural education in isolated areas. Nevertheless, the fact is that of the 3,626 sisters and priests engaged in teaching, only seven per cent are located in rural areas. And this seven per cent is largely concentrated in two areas: the Capuchino mission in the Guajira and Putamayo.

TABLE 4. Calendar of Rainfall, Activity, and School Vacations for Cereté, Córdoba (1963).

Month	Average Rainfall in inches	Gathering of Lizard Eggs and Turtles	Activity			
			Cotton	Corn	Rice	Manioc School
January	5		Harvest			Harvest Vacation
February	4	Lizard eggs	Harvest			Classes begin 15th
March	8	Turtles				
April	25	Turtles		Planting		Easter Vacation
May	61				Planting	
June	60				Planting	
July	59				Planting	15 days mid-term vacation
August	64		Planting	Harvest		Planting
September	63		Planting	Harvest		
October	49					
November	34				Harvest	Classes end on 15th
December	12		Harvest		Harvest	Harvest

crop isn't planted or harvested on time, the family may not be able to survive the year. Survival comes first. Finally, lack of transportation and roads made attendance during the rainy season extremely difficult. Even though the picture already presented is sufficient to indicate the lack of educational facilities, we must treat two more factors to make it complete. These are incentives to rural school teachers and content of the school curriculum.

Incentives to Rural School Teachers

The "glamour" of Colombia is generally not encountered in rural areas. By and large, all activity in the rural areas of Colombia is characterized by hard work, difficult living conditions, and poor facilities. According to Colombian law, the departamentos and municipios are responsible for paying teacher salaries, furnishing materials necessary for teaching and furnishing the building for the purposes of teaching. The constitution states that at least 15 per cent of the budget must be devoted to education. On paper, this is accomplished but one wonders how, when he sees a rural school. In the ten communities studied, not one new school was encountered in the rural area. Rarely did we find the school located in a building built exclusively for teaching. The vast majority of schools were located in old homes in a poor state of repair.

For example, in one of the areas studied, 24 schools were encountered. Of these, only five could be called modern and well cared for and all of these were located in the urban center of the municipio. None of the schools had sanitary toilets; the only teaching aids present in 17 of the 24 schools were maps of Colombia. Five (the same five mentioned above) had small libraries. In many instances, only one book per subject was available and this had to be shared by as many as 25 students. And this is not atypical for the country as a whole.

The average monthly salary for rural, primary teachers in 1963 was \$60 to \$70. But rarely were salaries paid on time or for the entire year. In 1962, teachers' salaries were

suspended in October; in 1964 they were suspended in September for rural school teachers.¹³

In contrast, urban schools are semi-modern, have more teaching aids, and salaries average a little higher. Also the salaries are almost always paid. In Colombia, teacher placement is determined by the State Ministry of Education. It is commonly believed, and quite likely true, that those teachers with the most "pull" would receive the best positions.¹⁴ As a result, if a teacher is assigned to a rural school, it is quite likely that he will always be assigned to rural areas. Since many of these decisions for assignment are not based on ability, one encounters a few well-prepared teachers in rural areas. But encouragement to do well or possibilities for advancement are rare.

Theoretically, the teachers have a vehicle for transmitting complaints to responsible authorities. FEDECODE, the Colombian Federation of Teachers, is a union-like structure for promoting the "intellectual, moral and economic improvement of its members." But it does not perform a true union function. Its real purpose is to protect the interest of those teachers who already have "pull." Local teachers organizations affiliate with FEDECODE in an attempt to bring pressure to bear on State officials. Rarely is this accomplished.

For example, in a study done in a community in the Llanos, the local organization (Asociación Educativa de Meta) presented a petition to the State Department of Public Administration demanding a 40 per cent increase in salaries for all teachers in the state. It further requested that at least five per cent

¹³In 1962, many salaries were suspended in October for rural functionaries and two months later the peso devaluated. In 1964, suspensions took place in September and in November the peso again devaluated. It appears as though economic pressures in national budgeting bring about cut-backs in expenditures in vital areas such as teaching rather than in the numerous appendages to national bureaucracy.

¹⁴In Colombia, the word palanca refers to "pull" in English. Palanca is viewed by many as the key to success. Without it, regardless of ability one may have difficulty utilizing his abilities.

of the state (departamento) budget be appropriated for classroom construction and the expansion of the school restaurant and medical aid programs for the children. The association gave the state ninety days to accept or reject the petition. If its demands were rejected, the association threatened that "means of a drastic character will be taken for which we can count on the support of other members of FEDECODE."

In the words of the person doing the research in this community, "It is difficult to know what drastic means the teachers would be willing to take. This term could indicate a strike but the likelihood of such a move is as faint as is the probability that the government would accept the proposal. The teachers do not believe that the association could wield much power and had little hope for any sort of reform."¹⁵ This view was confirmed by the school chief in the community who indicated that nothing could be gained by the request and the teachers would go on teaching through "resignation," regardless of the outcome.

What then are the incentives for rural school teachers in Colombia? Basically, there are very few. The majority of rural teachers are aware of their situation and have few aspirations towards a better job. Many are devoted to the cause of education but devotion alone soon falls short of being sufficient. When the pay check fails to come the teacher rapidly loses interest. The muddy roads begin to look muddier and the shabby schools shabbier. The rural teachers stay because they have few opportunities to do anything else. These channels for upward mobility in the education profession are blocked, their voice poorly represented by FEDECODE, and the facilities for teaching are minimal. In the local community, the school teacher holds a prestige position but in the broader reference group of the teacher, he is looked down upon. And in the words of one rural school teacher, "Well, here I stay because I must."

¹⁵Jane Loy, A Study of Primary Education in Rural Colombia, unpublished report, (Madison: Land Tenure Center), 1964.

Content of Primary School Teaching Program

Theoretically, the curriculum for rural primary education is the same as that taught in the urban schools. Decree 1710 of 1963 attempted to end "social injustice of imparting a reduced education to those who are born and live in the rural areas and a preferential education to those of the city and urban districts" by standardizing the curriculum. The course program of Decree 1710 attempted to provide 33 hours of classroom work per week for all five grades of primary education. These 33 hours were to be divided among seven basic areas of study: 1) religion and moral education, 2) Spanish, 3) mathematics, 4) social studies, 5) natural science, 6) aesthetic and manual education, and 7) physical education.

This, of course, is a paper curriculum but one is reminded of the "little woollyhorses and the sabre-toothed tigers" of The Sabre-Tooth Curriculum. First of all, our field studies done in 1963 and 1964 in ten different areas of Colombia indicate that more than half of the rural schools in Colombia are alternated, thus reducing the number of classroom hours per week per child to 17 hours. Secondly, subjects such as "intuitive geometry" and "written composition" can hardly be taught by teachers with less than primary education, yet more than half of the rural teachers possess five years or less education. Finally, teaching intuitive geometry, written composition, dancing, and urbanity (subjects which are listed as part of the basic curriculum for rural schools) is like teaching how to kill sabre-tooth tigers even though none exist in the area. This criticism becomes more relevant when one understands that about three-fourths of the rural population are effectively blocked from attending a college preparatory school due to location of these schools and tuition costs. This type of a curriculum may be appropriate for a developed country where nearly all students receive at least a high school education. But in a country where less than five per cent of the population between the ages of 10 and 19 attend a college preparatory school and less than one per cent of those who do attend enroll in a university, such a curriculum appears inconsistent with reality. It is quite likely that a more appropriate curriculum would entail training in functional literacy and some kind of vocational training in agriculture, small industry, and crafts.

Summary

One of the crucial conclusions which may be drawn from the discussion of rural education in Colombia is that the very structure of the education system represents a block to upward mobility. Without adequate training, individuals can hardly be expected to enter into non-farming activity even if the industrial sector of the country could absorb them -- which it can not at the present time. Adequate training could be defined as 1) functional literacy, 2) rudimentary knowledge of mathematics and accounting, and 3) some training in civics and civil responsibilities. That this type of training currently is not being performed should be obvious from the previous discussion. The doors to higher education are barred to at least three-fourths of the Colombian population because of 1) lack of five year primary schools in the rural areas, and 2) the poor level of teaching offered in those schools that do exist. Yet basic education is a necessity if Colombia is to develop.

Other Educational Programs

It would be erroneous to conclude from the previous discussion that Colombians do not appreciate the need for education. It would be more correct to state that consensus exists concerning the need for education but how to fulfill this need is still an open question. Given the scarcity of both human resources (e.g., lack of trained teachers) and economic resources (e.g., budget deficiencies), it is impossible to revamp the current education system for the entire country in a short time. Until this can be accomplished, other types of educational programs may help to fill the gap. Attempts have been made in Colombia to develop vocational schools and radio schools. Also attempts have been made to educate the populace through extension programs. These attempts will be briefly reviewed in this section.

Radio Schools

Through a special Concordat of 1886, the Catholic Church was given the responsibility for monitoring education in Colombia. The Church controls 80 per cent of all kindergartens and 80 per cent of all secondary and commercial schools. Although the church supports only 15 per cent of primary schools, it supervises classes of moral and religious training in the primary school. Because of the control the church

exercises over education, it has been highly criticized by some due to its traditional education policies. Fals Borda asserted that the church has maintained a system of castes by educating the elite and ignoring the needs of the middle and lower classes.¹⁶ The result of this policy is that rural people who want to send their children to school are unable to do so because of lack of institutionalized channels. In essence, the state, by means of the Concordat, has granted to the church the right to be the "supreme vigilant of national education." Yet the church has not been active in creating a responsible, efficient, democratic rural school. Data presented previously tend to support these assertions.

But the church has made some efforts. Perhaps the most dramatic is the church-sponsored program called Acción Cultural Popular (ACPO). ACPO is an activity largely supported by the Jesuits. Father José Joaquín Solcedo initiated the ACPO program in 1947. The idea is simple. Due to the inaccessibility of many rural villages, the radio was viewed as a means to bring education to a large number of people with a limited number of trained personnel. A radio relay located in Sutatenza sends programming to Bogotá for transmission, beaming classes in reading and writing to all parts of Colombia. Adults interested in receiving the broadcast purchase a one-band radio for about \$19.00. It is not rare to find several rural families who pool their money to buy the receiver. Classes are broadcast at 6:00 a.m. and 3:30 p.m.

The radio lessons consist of two one-year courses at beginning and advanced levels. Literacy is the basic objective, but the reading material includes items on health, sanitation, and improved farming practices. After class hours, Radio Sutatenza (as it is known throughout Colombia) broadcasts news, extension programs, religious training, and classical music.

The schools require little equipment beyond the radio. Specially prepared paperback texts are furnished by ACPO at a nominal cost and are distributed through the parish priest. Each school has an auxiliario, or assistant, to help the students in following instructions and to encourage them to listen regularly. These assistants are sent to Sutatenza where they receive special classes in techniques of instruction and vocational education.

¹⁶Fals Borda, op. cit.

Perhaps even more important than the assistant is the parish priest. The priest must organize, stimulate, and control the schools through frequent visits and monthly meetings with the assistants. Furthermore, the priest is the essential link between the local community and the regional authorities of ACPO. Previous studies indicate that the priest is the key determinant in success or failure of the ACPO effort.¹⁷

There are about 16,000 radio schools in Colombia with the heaviest concentration in the departamentos of Boyacá, Cundinamarca, Santander, and Antioquia.¹⁸ This concentration is probably a reflection of two factors, proximity to Sutatenza and strength of devotion to the Catholic Church. These 16,000 schools claim some 130,000 students with one-third of them less than 14 years old and 90 per cent in the rural areas. Over 60 per cent of those enrolled in the schools are illiterate. ACPO claims that its program of literacy is 64 per cent effective; that is, of all illiterates enrolled 64 per cent can read and write after the one-year course. These results are based on a test administered to each student at the conclusion of the course.

The ACPO program is almost entirely financed by the church. It undoubtedly represents a major contribution yet it is not above criticism or improvement. First of all, our field studies indicate that many parish priests invest little time in the program. Perhaps a more concerted effort by the local priest would bring about still greater results. This is particularly true in the more remote areas such as Naciño and Cauca, and also in areas of the Atlantic Coast. Generally, the ACPO program operates best in areas where the primary education is strongest. Thus, those who more desperately need the assistance may not be receiving it. Secondly, the ACPO program is a start in the right direction but is not sufficient to give a rural person the minimum necessities. (To be fair to ACPO, it should be noted that church leaders are fully aware of this.)

Notwithstanding these deficiencies, the ACPO program does represent an important effort in rural education. It is one of the few attempts of the church to make education available to all.

¹⁷Camilo Torres and Berta Corredor, Las Escuelas Radiofónicas de Sutatenza, (Bogotá: Centro de Investigaciones Sociales, 1961), p. 54.

¹⁸These data come from ACPO files in Bogotá, 1963.

Extension, Research, and Training

Since the creation of the Ministry of Agriculture, there has been the intention of forming an extension program on a national basis. After World War II, an attempt was made to activate the extension portion of the Ministry of Agriculture. The Rockefeller Foundation has established several experiment farms throughout the country and carries out valuable plant and animal testing. The United States government established a Technical Agricultural Service in cooperation with the Colombian government that functioned from 1954 to 1961. But Colombia has never had a real extension program.

On paper, the Colombian Extension Service (until 1963) had the following structure. There was an Executive Coordinating Office in Bogotá under the Ministry of Agriculture. Each departamento (state) was called an "Agricultural Zone" and was responsible for the extension activity in the zone. An "Extension Agency" was expected to function in each municipio composed of: 1) an agronomist, 2) a 4-H leader, and 3) a home economist. In 1961, there were 131 agronomists employed in the extension service (the Ministry of Agriculture authorized 155) and 290 non-professional employees.

An evaluation of the program was carried out in 1961 and the following was reported:

For now it is not possible to say that the organization functions adequately. The personnel are not well-trained; they lack capacity and a large part of time is spent in writing reports. The facilities for an extension service are few. Almost all of the budget is spent for salaries. The work programs are carried out only in theory. The written reports mention few cases of farmers who have been contacted....A lack of coordination between the extension service and the Rockefeller Foundation-supported experiment stations is noted.¹⁹

This appraisal is reinforced by our research results. In each of the ten areas studied, we asked farmers where they received information about new products. With the exception of

¹⁹Comisión de Educación Agrícola Superior, Educación Agrícola Superior en Colombia, (Bogotá: Universidad Nacional de Colombia, 1961) p. 48.

the coffee region and the Valle de Cauca, not one farmer listed a government extension worker as a source of information.²⁰ (The Federation of Coffee Growers and the Corporación Autónoma Regional del Cauca have their own extension programs and will be discussed in a separate section on Colombia). In fact, one of our study sites was contiguous to one of the Rockefeller Experiment Farms. Of 145 individuals interviewed, not one knew of any results of the experiments being conducted.

In an effort to improve the overall agricultural program, the Colombian government has recently established the Instituto Colombiano Agropecuario (ICA) in an attempt to coordinate extension, teaching, and research (basically patterned after the land grant college system). Due to the recent establishment of ICA, it is impossible to attempt to evaluate it at this time. Some hurdles must be overcome if it is to be successful and we may list these. In 1962, the universities in Colombia enrolled over 4,000 students in medicine and over 4,300 students in law. The same year about 2,000 were enrolled in social sciences (which includes sociology, economics, and anthropology) and less than 2,000 in agronomy and veterinary medicine combined.²¹ Thus there is still a tendency for students to enroll in the traditional faculties of law and medicine although there is a surplus of lawyers and doctors and a scarcity of trained agricultural personnel. ICA must compete with other agencies for these individuals. At the start of 1964, ICA was hiring agronomists at a starting salary of about \$400.00 per month. Yet the budget of ICA is relatively low. There is a tendency for the large portion of the budget to be tied up in salaries.

²⁰This finding is more relevant when it is noted that extension agents were present in these other areas. Also, it should not be concluded that no contacts are made anywhere in the country. Van Es found relatively high contact in a community located close to Bogotá. It may be that proximity to Bogotá is a factor since our studies were done in distant communities. See Johannes C. van Es, Opinion Leadership in Colombian Veredas with Different Norms on Social Change, M.S. Thesis (Columbus: The Ohio State University Press, 1964).

²¹Informe del Rector de la Universidad Nacional de Colombia (Bogotá: Universidad Nacional de Colombia, 1963).

Even though the Ford Foundation and the Rockefeller Foundation are committing large sums of money to ICA, they must realize that if ICA is to be successful they have to reach local people. Production experiments on plant and animal breeding are plentiful in Bogotá but these data are currently in files and not being applied to agricultural firms. Yet the budget for communication and extension in ICA is much lower than that committed to further experimentation. ICA will not have, in the near future, many more funds than it currently has. It may be that its current resources are poorly allocated in terms of the needs of Colombia. Furthermore, ICA will not be able to establish an effective extension program for the entire country either now or for many years to come due to this lack of personnel and budgetary sources. Instead of "spreading itself too thin" it should pinpoint its extension attempts to the most pressing areas.

Other agencies such as CVC and the Federation of Coffee Growers have active extension programs. Of course, they too are beset with similar problems. But their programs are proportionally higher financed and their personnel are more competent. It is largely due to the coffee growers' work in extension that has kept the small coffee producer in a position to improve his situation by applying new varieties and marketing his product on time. Perhaps more agencies such as these could help defray the costs of extension education for the national government.

In summary, it is evident that up to the present the extension program has not been a major force for change in the rural areas. Nor will it be in the near future. As CVC has stated:

The task of making known and applying new approved methods and practices in order to reach the expressed goals [of extension] can not be either an immediate or easy result. It requires, on the contrary, ability and patience on the part of those who serve to intertwine the farmer and the men of science that discover new, applicable knowledge to each distinct and particular farm.²²

²² Corporación Autónoma Regional del Cauca, "Informe Especial," Economía Grancolombiana, Vol. 3, No. 15, March, 1962.

Current Investments in Education

Current investments in education in Colombia come from a variety of sources. The major investment is, of course, made by the Colombian government. Other sources are: 1) the Alliance for Progress funds, 2) UNESCO, 3) OAFEC, and 4) Ministry of Agriculture (extension and vocational agriculture training). The Colombian government, through direct and indirect taxes, invests about 60 million dollars annually in the Ministry of Education.²³ About one-third of the amount is spent on projects where some type of return is expected, such as school construction. The remainder, or about 40 million dollars is available for direct costs to education. Yet in 1962, there was a \$1,400,000 deficit in teacher salaries alone. Money pledged to national scholarships was not paid and monthly retirement checks were not met. A similar occurrence is currently taking place in Colombia.

The Alliance for Progress funds, UNESCO and AID are a vital source of revenue for the Colombian educational program. These agencies are primarily concerned with school construction, teacher training, and research. Furthermore, many private agencies and semi-autonomous groups such as the Federation of Coffee Growers, the CVC, and the Industrial Association of Colombia make investments in vocational education programs. Lastly, the Colombian students and their parents make tremendous investments in terms of tuitions paid to attend school.

Still the effort is not sufficient. About 15 per cent of the national budget goes to education. This, coupled with private and foreign investments, represents about a \$100 million annual investment. But about 40 per cent of the Colombian populace is still illiterate.²⁴ Although 100 million dollars represents a sizeable investment, it is not sufficient given the extreme needs and poor administration of these funds.

²³This a per capita investment of about \$4.00.

²⁴Estimates on illiteracy vary widely in Colombia. This estimate is based largely upon our field studies and DANE reports.

Discussion

The data presented concerning education in Colombia leaves no doubt as to the necessity for improvement if Colombia is to be able to sustain economic growth. Improved education, as a national goal, is agreed upon by most Colombians and foreign advisors working in Colombia. But how this goal should be attained is a subject of much controversy. Actual content of the education program, techniques for teaching, and improved schools are primarily of concern to educators and administrators and no attempt is made here to treat this topic. But certain relevant conclusions based upon an understanding of the structure and function of the educational system may be useful to those planning crash programs.

In a recent paper, Nyint speaks of a passive and active role of education. He suggests that those who support education as the key factor to development and change are "trying to produce square pegs which will not fit in round holes but will serve to tear down the existing economic patterns into new patterns."²⁵ In brief, the argument is that education, as an active force, will perform two functions: 1) the development of technical innovations and transformation of the productive structure, and 2) produce men who can undertake social and political innovations.

Even assuming that a crash program could provide sufficient trained personnel to perform these functions relative to technological innovation, it is questionable that it will allow for innovations in the social and political structure. Economic development cannot be sustained in Colombia unless the underlying social and political tensions which threaten political stability can be eased. It is quite unlikely that education alone can perform both of these functions of the so-called active role.²⁶ As Nyint states, "Now it is difficult enough to specify in concrete terms the educational system which might tend to encourage technical innovations in the strictly economic and material sense. It becomes well nigh impossible to specify the norm of an educational system which will promote social innovations and political stability."²⁷

²⁵N. Nyint, *op. cit.*, p. 4.

²⁶In fact, we will shortly argue that education alone may promote unrest and instability.

²⁷N. Nyint, *op. cit.*

But what of education as a passive force? Myint analyzes the passive force in a strictly economic sense in terms of supplying different types of skilled manpower which will be required by a given pattern and rate of economic growth. Thus it is supportive and not disruptive. But it may also perform another function in a passive role in a sociological sense.

Almost all students of social change and economic development stress the dominance of the family as an authority structure in developing countries.²⁸ The family is the major socializing agent in these societies. As such, the family sets limits, in the performance of its socialization function, upon the perception of the child. If the family is traditionally oriented (and by definition it is in peasant societies), it passes on these values to the child. Since the child is limited in exposure to outside agencies, he comes to think and act as the traditional groups. But the school could be a socializing agent also. It could broaden the vistas and horizons of the child. If the child could obtain five years or more of well-taught primary education, he might become capable of seeing new alternatives to his own situation which have gone undetected by the family. He might become capable of making his own alternatives instead of waiting for the government or some other agency to create them for him. This could be one of the most important functions of education in its "passive" role.

Another recent view of the role of education in economic growth has been presented by Harbison and Myers.²⁹ They argue that human resource development has three major components: 1) formal education, 2) the building of incentives, and 3) the utilization of possibilities for on-the-job training. According to their scheme these three components should comprise the overall strategy for human resource development. But priorities that should be established, particularly in the formal education system, will vary depending upon the degree of development of the country. For purposes of analysis they postulate four stages: 1) underdeveloped, 2) partially developed, 3) semi-advanced, and 4) advanced.

²⁸ C.F. Bert F. Hoselitz, Social Aspects of Economic Growth, (New York: The Free Press of Glencoe, 1963), p. 45.

²⁹ Frederick Harbison and Charles Myers, Education, Manpower, and Economic Growth, (New York: McGraw-Hill, 1964).

According to their formulation, Colombia falls in the "partially developed" category. In this category, they suggest the strategy should be reform and expansion of secondary education.³⁰ Their logic is forthright. The economic need in partially developed countries is to build a base for industrialization while expanding agricultural production. There are acute shortages of all categories of professional and technical personnel. (We have demonstrated this in earlier sections for Colombia.) Universal primary education is attainable. Increasing populations and unemployment create pressure for rapid growth and reform.

Their description of a partially developed country is certainly appropriate to the Colombian situation. So let us pursue their strategy. Coupled with the expansion of secondary education, more emphasis is placed on high quality education in science and engineering. The cost of primary education is to be kept as low as possible but the quality improved through new techniques. And it is necessary to increase the incentives to engineers, teachers, and technicians by means of increased salaries.

Now, what might be the consequences if this strategy alone were pursued in Colombia. It was demonstrated earlier that due to the structure of the education system, the doors to secondary schools were effectively barred to three-fourths of the Colombian population even if they had five years of primary education. As indicated earlier, this is so because of the location, costs, and content of secondary education. Furthermore, the majority of rural people, due to their farming situation, do not possess capital to invest in secondary education. And there are no sources of credit. If this type of strategy were employed in Colombia, without simultaneous reform in other aspects of the society, the logical outcome would be increased desires without means to fulfill them. This, of course, is a situation ripe for exploitation and disruption. It may not lend itself to stability and growth.

It seems, then, that education is a necessary factor in development but not sufficient -- particularly in Colombia.

³⁰ Interestingly, this is the current emphasis of AID in Colombia and not on primary education.